

PRECIPITATION

The precipitation during March was mainly well distributed in point of time. The interior of the south-central portion, however, received but little between the 6th and 20th, and in fact much of the lower Mississippi Valley got a great part of the monthly total during the last few days of the month.

As a whole, March gave much more than normal precipitation to the far Northwest, also to almost all districts from Kentucky and North Carolina northeastward. Amounts moderately above normal usually were received in central and northeastern Florida, the central part of the lower Mississippi Valley, northern Iowa and districts adjacent, and considerable portions of Wyoming and Colorado.

Nearly all of California and Arizona received far less precipitation than normal, while the middle Plateau States and western New Mexico had somewhat less. Most Gulf coast districts from western Florida westward fell far short of the normal amounts, as did almost all of the southern Plains and the central valley areas. From Michigan to central Montana there was generally a shortage, also in Nebraska and western South Dakota.

The greatest amount reported at a single station was 29.63 inches, at a place in western Washington. East of the Continental Divide the maximum was 9.79 inches at a station in the West Virginia mountains.

SNOWFALL

As a rule snowfall was greater than normal, often much greater, in the northern and middle Rocky Mountain

and Plains States, the upper Mississippi Valley, Lake region, and to eastward. Several States in the Lake region measured the largest snowfall ever known in March or very nearly the largest.

At Norfolk, Va., snow fell for the first time since March, 1931; and at Parkersburg, W. Va., the first measurable snow for over 11 months came on the 6th. There was snow enough to measure at some Texas coast stations for the first time ever known at those places in March.

The central valleys and the Ozark region usually had little snow, and there was mainly but little in the middle and southern Plateau areas.

The outlook for abundant stream flow in the Western States was usually quite good at the end of March, but in some of the southern mountain districts there was only about an average amount of stored snow or slightly less than average.

SUNSHINE AND RELATIVE HUMIDITY

Much cloudy weather prevailed in the region of the Great Lakes, the Ohio Valley and the northern half of the area west of the Rocky Mountains, while more than the usual amount of sunshine was received in the southern portion of the Plateau and Pacific areas. Elsewhere about the normal amount for March prevailed. The relative humidity was generally above the normal in much of the northern border States and also in the central portion of the Great Plains and Plateau regions, while elsewhere it was generally below the seasonal average. The departures above and below the normal were as a rule small; however, in the central portion of the South Atlantic States the deficiencies were more pronounced.

SEVERE LOCAL STORMS, MARCH, 1932

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards) ¹	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Illinois and Indiana.....	1-2				\$388, 000	Glaze.....	Telephone and electric wires and poles broken; orchard and shade trees damaged; wire communication cut off in many places.	Official, U. S. Weather Bureau.
Iowa (northern half).....	1-2					Glaze and wind.....	Many thousands of dollars damage to telephone, telegraph, and radio equipment; power and electric service crippled.	Do.
Lyon, Sioux, Clay, Dallas, Polk, Marshall, Boone, Webster, Woodbury, and Plymouth Counties, Iowa.	1-4					Floods.....	Bridges and roadbeds washed out; railways inundated; farm lands flooded.	Do.
Deepwater and Lynchburg, Tex.	3	4:15 a. m.	300			Tornado.....	Several houses and garages wrecked; 12 persons injured.	Do.
Atlantic seaboard (Florida to Sandy Hook).	5-6					Wind.....	Much damage to crops, timber, marine interests, overhead wires, and buildings.	Do.
Northern Virginia, western Maryland, and West Virginia.	6-7			2	1, 642, 800	Wind, rain, sleet, and snow.	Wire systems and buildings damaged; motor traffic tied up.	Do.
New York and northern Pennsylvania.	6-7			3		Snow and wind.....	Widespread damage to telephone and telegraph equipment; roads blocked; wire service entirely suspended in some places.	Do.
Salem (near), Ark.....	16	8:30 p. m.			1, 500	Tornado.....	Timber, barns and contents damaged.	Do.
Little Rock to Scott, Ark..	16	9:15 p. m.	100		57, 000	do.....	Damage chiefly to communication lines and buildings; path 1.5 miles long; 5 persons injured.	Do.
Crawford County, Ark.....	16-17				2, 000	Wind.....	Buildings damaged.....	Do.
Paris, Ark.....	16-17				7, 500	do.....	Chief damage to buildings.....	Do.
St. Joe, Ark.....	16-17					do.....	Frame buildings and roofs damaged.....	Do.
Walla Walla, Wash.....	18				25, 000	Heavy rains.....	Roads and bridges damaged; gardens and farm lands flooded.	Do.
New Mexico.....	20	10 a. m.			10, 000	Wind.....	Autos, roofs, sheds, trees and fields damaged.....	Do.
El Paso, Tex.....	20	5 p. m.				do.....	Considerable damage to roofs, signs, plate glass windows, and insecure objects; alfalfa injured.	Do.
Arizona.....	20-21			1		do.....	Small house unroofed; 1 person injured.	Do.
Carrier Mills to near Harrisburg, Ill.	21	3 p. m.	8-16		10, 000	Tornado.....	Buildings damaged; path 6 miles long.....	Do.
Uniontown, Ky., to Seymour, Ind.	21	3: 35-6 p. m.		2	247, 000	Wind and hail.....	Heavy property and crop damage.....	Do.
Lewis to Trusdale County, Tenn.	21	5 p. m.	250-440	3	60, 000	Tornado.....	Character of damage not reported. 16 persons injured; path 90 miles long.	Do.
Lawrence to De Kalb County, Tenn.	21	5: 30-7 p. m.	100-440	9	120, 000	do.....	Great destruction to property along 100-mile path; 73 persons homeless.	Do.
Atlanta, Ga., and vicinity..	21	6-7 p. m.		1	15, 000	Wind.....	Plate-glass windows broken; power lines damaged; light and telephone service impaired.	Do.

¹ "Mi." indicates miles instead of yards.

Severe local storms, March, 1932—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Evansville, Ind.....	21	6:15 p. m.	-----	-----	\$200, 000	Tornado.....	Many buildings damaged; fences and insecure signs blown down.	Official, U. S. Weather Bureau.
Georgia (northern).....	21	7:15-8 p. m.	-----	28	174, 000	7 tornadoes.....	More than 200 homes wrecked; several hundred persons injured; livestock killed; telegraph and telephone companies suffer heavy loss.	Do.
Polk County, Tenn.....	21	7:22 p. m.	440-1, 760	7	60, 000	Tornado (entered from Georgia).	17 persons injured; character of damage not reported.	Do.
Charleston, Tenn.....	21	8:50 p. m.	100	1	60, 000	Tornado.....	21 buildings demolished or damaged; 23 persons injured.	Do.
Jefferson and Cocke Counties, Tenn.	21	10 p. m.	1.5 mi.	-----	60, 000	Wind.....	Heavy property damage; 20 head of cattle killed; 6 persons injured.	Do.
Alabama (northern).....	21	P. m.	-----	264	3-4, 000, 000	7 tornadoes.....	Extensive property damage; many families left homeless; hundreds injured; livestock killed.	Montgomery Advertiser (Ala.).
Strong, Rosebloom, and Goodman, Miss.	21	-----	-----	-----	-----	3 tornadoes.....	No details reported.	Official, U. S. Weather Bureau.
Marion County, Tenn.....	21	-----	-----	2	15, 000	Tornado (entered from Alabama)	12 houses destroyed.	Do.
Pine Bluff, Ark.....	21	-----	-----	-----	1, 000	Wind.....	Buildings and homes damaged; trees uprooted.	Do.
Northern Illinois, Indiana, and Ohio.	21-22	-----	-----	-----	683, 150	Snow, wind, glaze, and possibly 2 tornadoes.	Public utilities suffer delay and losses. Winds of tornadic character at Hamilton and Radnor, Ohio.	Do.
Clarke to Madison County, Ga.	22	1:45 a. m.	50-300	12	60, 000	Tornado.....	75 houses and several old churches wrecked; roofs and small buildings damaged; wires down.	Do.
Greenville, Laurens, Spartanburg, and Cherokee Counties, S. C.	22	A. m.	-----	-----	10, 000	Wind squalls.....	Character of damage not reported.	Do.
Jonesville, S. C.....	22	A. m.	-----	-----	15, 000	Severe thunder-storm.	Cotton warehouse damaged by lightning.	Do.
Spartanburg County, S. C.	22	A. m.	350-400	3	100, 000	Tornado.....	100 persons homeless; 34 persons injured. Character of damage not reported.	Do.
Parkersburg, W. Va.....	22	-----	-----	-----	4, 000	Wind.....	Roofs and small buildings damaged.	Do.
Garfield and adjacent counties, Wash.	24	12:30 p. m.	-----	-----	6, 000	Gale.....	Power line blown down; roofs damaged; crops hurt.	Do.
Selman City, Tex.....	27	5 a. m.	100	-----	75, 000	Tornado.....	Oil derricks down; several farm homes demolished; 20 persons injured; path 3 miles long.	Do.
Pattison, Miss., and vicinity.	27	9:40 a. m.	25	-----	-----	Probably tornado.	No details of damage; path 2.5 miles long.	Do.
Box Elder (near), Tex.....	27	A. m.	-----	1	-----	Tornado.....	Farms damaged; communication lines blown down; 13 persons injured.	Do.
Buchanan, Ga. (5 miles east).	27	6 p. m.	-----	1	25, 000	do.....	26 houses wrecked, 13 damaged.	Do.
Corinth to Newnan, Ga.....	27	6:15-6.30 p. m.	-----	-----	35, 000	do.....	18 houses demolished; many persons hurt.	Do.
Atlanta, Ga.....	27	6:30 p. m.	-----	-----	1, 000	Wind.....	Chimneys blown down; trees prostrated; transmission lines out of commission.	Do.
Albany, Ga.....	27	-----	-----	-----	2, 000	do.....	Garages blown down; several homes unroofed; trees uprooted.	Do.
Bibb and Chilton Counties, Ala.	27	-----	-----	6	-----	Tornado.....	Details not reported.	Montgomery Advertiser, (Ala.).
Elmore to Chambers Counties, Ala.	27	-----	-----	-----	-----	do.....	Homes and stores wrecked; 12 persons injured.	Do.
Western Maryland.....	27-28	-----	-----	-----	500, 000	Wind and snow.....	Chief damage to poles and overhead wires.	Official, U. S. Weather Bureau.
Amelia, Powhatan, Goochland, Hanover, Essex, and Caroline Counties, Va.	28	-----	-----	-----	95, 000	Severe squalls and small tornado.	Homes, barns, and mills affected. Tornado characteristics at Loretto.	Do.
Anne Arundel, Queen Annes and Kent Counties, Md.	28	-----	-----	-----	13, 000	Wind.....	Chief losses to telegraph companies; dwellings and barns damaged.	Do.
Scott City, Kans. (3 miles north).	29	5 p. m.	-----	-----	-----	Tornado.....	No damage reported; occurred over sparsely settled area.	Do.
Coffee County, Ala.....	31	-----	-----	-----	-----	do.....	No details reported.	Do.
Howard, Kans. (8 miles north).	31	10 a. m.	-----	-----	-----	do.....	do.	Do.

THE TORNADOES OF THE LATTER PART OF MARCH, 1932

By H. C. HUNTER

[Weather Bureau, Washington, May 2, 1932]

During the final fortnight of March, 1932, tornadoes were much more numerous and destructive than they had been at any time previously since 1927. The region of occurrence was wholly within the southeastern quarter of the country.

Practically all of the tornadoes occurred within two periods of time, which were not quite a week apart. By far the more important group came during the latter part of Monday, the 21st, and the very first few hours of the 22d. The other period marked by several tornadoes embraced the 27th and the first hours of the 28th. The group of the 21st-22d was apparently the most destructive tornado group experienced in the section to southward of the Ohio River since February 19, 1884.

In fact, the State of Alabama, which suffered most severely, has probably never known another visitation ranking with this one in 1932.¹

The regular observations of the Weather Bureau, taken at each hour of 7, ninetieth meridian time, locate the center of the large low-pressure area connected with the first group of tornadoes as follows: Forenoon of 21st, near Fort Smith, Ark.; evening of 21st, Louisville, Ky.; forenoon of 22d, Buffalo, N. Y. The area connected with the second group was located as follows: Evening of 26th, near Abilene, Tex.; forenoon of 27th, Vicksburg, Miss.; evening of 27th, Knoxville, Tenn.; forenoon of 28th, Philadelphia, Pa.

Table 1 summarizes the information so far obtained, arranged by the individual States. The total number of tornadoes in the first group is thought to be three less than the sum of the State numbers, since two of the Tennessee tornadoes apparently entered from other

¹ Cf. Stevens, W. R., Tornadoes in Alabama, MO. WEATHER REV., 53: 437-443.